



January 10, 2006

Santa Rosa Associates II  
c/o INDUSTRIAL REALTY CO. of CA.  
1091 Industrial Road Suite 101  
San Carlos, California 94070-4118

SUBJECT: Groundwater Monitoring - Fourth Quarter 2005  
3842 Finley Avenue  
Santa Rosa, California

Dear Sirs:

Atlas Engineering Services, Incorporated (Atlas) respectfully submits the following report on groundwater monitoring conducted during the fourth quarter of 2005 at 3842 Finley Avenue in Santa Rosa, California. The scope of work completed includes sampling of one (1) monitor well and one (1) set of water level measurements at the three (3) monitor wells, as required by the North Coast Regional Water Quality Control Board (NCRWQCB) "Monitoring and Reporting Program No. R1-2002-0052 (issued May 10, 2002)". Attached to this report are copies of the field notes, chain-of-custody form, and lab reports.

#### Introduction

The above-referenced site is reported to have formerly contained underground storage tanks (USTs) used for aviation gasoline. Three (3) monitor wells (MW-1, MW-2, and MW-3) are present on the site (Figure 2). Prior to August 1997, monitoring was conducted by other consultants. This report documents sampling of monitor well MW-2 and water level measurements at MW-1, MW-2, and MW-3 conducted at the site by Atlas. Monitor well MW-2 was sampled on November 17, 2005. Water level measurements at MW-1, MW-2, and MW-3 were also taken on November 17, 2005.

#### Purging

On November 17, 2005, depth to water (DTW) was measured in monitor wells MW-1, MW-2, and MW-3 prior to the purging of MW-2. Monitor wells MW-1 and MW-3 were not purged or sampled.

MW-1: DTW was measured at nine and seventy-five hundredths (9.75) feet below the top of casing (TOC).

MW-2: Prior to purging, DTW was measured at nine and ten hundredths (9.10) feet below the TOC. MW-2 was checked for the presence of free product using a new, clean polyethylene disposable bailer with special attachment; no free product was present. A two-inch (2") diameter submersible pump was used to purge the well. Purge water was discharged into five (5) gallon buckets for volume measurement. A total of twenty-four (24) gallons were purged from the well, equal to three (3) casing volumes.



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MW-3: DTW was measured at nine and fifty-three hundredths (9.53) feet below the TOC.

### Sampling

Atlas waited to collect a groundwater sample until the water level had recovered to eighty percent (80%) of its original level. Then a new, clean polyethylene bailer was used to remove a volume of water from the well for collection of a sample. Four (4) volatile organic analysis (VOA) vials, each containing preservative, were filled with groundwater from the bailer. Because of the presence of a separate phase liquid in MW-2 during the first quarter 2005 sampling event, two (2) one-liter amber glass bottles were also filled with groundwater from the bailer. All of the VOA vials and amber bottles were labeled with the date, location, and sampler, prior to storage on blue-ice in a cooler. Water generated by purging and sampling was placed in a storage tank pending sample analysis.

### Laboratory Analyses

The sample containers were transported under chain of custody (see attached) to Entech Analytical Labs, Inc., a state certified laboratory, for analyses. The sample was analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-gas) and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260B; and diesel fuel #2, kerosene, motor oil, and stoddard by EPA Method 8015 modified.

Copies of the lab reports are attached. Sample results are presented in Table 1 with previous results.

MW-2: The EPA Method 8260B analyses for the MW-2 groundwater sample reported 5.300 milligrams per liter (mg/L) TPH-gas, 1,100 micrograms per liter (ug/L) benzene, 23 ug/L ethylbenzene, and 5.8 ug/L xylenes. Toluene was not detected above method detection limits. Diesel, motor oil, kerosene, and mineral spirits (Stoddard) were not detected above method detection limits for the EPA Method 8015 modified analyses for the MW-2 groundwater sample.

### Quality Control

Quality control is included in the attached lab reports.

### Horizontal Hydraulic Gradient

Immediately upon arrival at the site, and prior to purging and sampling, DTW measurements were taken at all three (3) wells by Atlas on November 17, 2005 using an electronic well sounder (see attached field notes). To calculate the horizontal hydraulic gradient, Atlas used TOCs referenced to Mean Sea Level (MSL) (Table 3) and casing coordinates (Table 2) surveyed by Atlas on August 18, 2004 using global positioning survey



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(GPS) equipment. The water surface elevations (WSEs) were calculated as the difference between TOC and DTW (Table 3).

Using such data, the horizontal hydraulic gradient was calculated for November 17, 2005 to be sixteen ten-thousandths (0.0016) foot per foot in a direction approximately two hundred and eighty-two (282) degrees clockwise from north, or approximately towards the west (Table 4; Figure 2).

### Summary and Conclusions

This report has been prepared to document quarterly groundwater monitoring conducted at 3842 Finley Avenue, in Santa Rosa, California (Figure 1) during the fourth quarter of 2005. The sampling and analyses were conducted in accordance with the requirements of the NCRWQCB "Monitoring and Reporting Program No. R1-2002-0052". In accordance therewith, monitor well MW-2 was sampled on November 17, 2005.

Analyses of the MW-2 groundwater sample reported 5.300 milligrams per liter (mg/L) TPH-gas, 1,100 micrograms per liter (ug/L) benzene, 23 ug/L ethylbenzene, and 5.8 ug/L xylenes. Toluene was not detected above method detection limits. Diesel, motor oil, kerosene, and mineral spirits (Stoddard) were not detected above method detection limits.

Water level measurements were collected at all three (3) wells (Table 3). The horizontal hydraulic gradient was calculated for November 17, 2005 to be sixteen ten-thousandths (0.0016) foot per foot in a direction approximately two hundred and eighty-two (282) degrees clockwise from north, or approximately towards the west.

### Recommendations

In accordance with "Monitoring and Reporting Program No. R1-2002-0052" issued by the NCRWQCB for the site, Atlas recommends sampling of all three monitor wells during the next quarter, and collection of water level measurements from all three (3) wells for use in determining the horizontal hydraulic gradient.

If separate phase compounds are present in MW-2 groundwater during the first quarter 2006 sampling event, Atlas also recommends sampling and analysis of MW-2 groundwater for SVOCs by EPA Method 8270C to verify the presence of the phthalates detected during the first quarter 2005.



Santa Rosa Associates II  
January 10, 2006

Please call me at (831) 426-1440 if you have any questions or require additional information.

Sincerely,



Frederick A. Yukic, MS, PE  
Principal Engineer

cc: Mr. Stephen Bargsten, NCRWQCB  
Mr. Jerry Vincent, USACE

**Table 1.**  
**Water Analytical Results**  
**Santa Rosa Air Center**  
**3842 Finley Avenue**  
**Santa Rosa, California**

Location	Date	TPH-gas	TPH-avgas	TEPH	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Semi Volatile Organic s
		mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Overex.	4/20/1992	0.13	--	--	1.7	ND	0.8	ND	--	--
MW-1	3/4/1994	0.09	--	--	ND	0.5	ND	0.7	--	--
	6/30/1994	0.26	--	--	ND	ND	ND	ND	--	--
	10/5/1994	ND	--	--	ND	ND	ND	ND	--	--
	12/15/1994	ND	--	--	ND	ND	ND	ND	--	--
	6/21/1995	0.15	--	--	ND	11.0	3.3	1.5	--	--
	9/25/1995	0.24	--	--	1.4	ND	ND	ND	--	--
	3/8/1996	0.12	--	--	0.89	ND	ND	ND	--	--
	12/24/1996	0.059	--	--	ND	ND	ND	ND	--	--
	4/14/1997	0.055	--	--	ND	ND	ND	ND	--	--
	7/16/1997	0.053	--	--	ND	ND	ND	ND	--	--
	8/19/1997	0.12	--	--	ND	ND	ND	ND	ND	--
	11/14/1997	0.055	--	--	ND	ND	ND	ND	ND	--
	2/17/1998	ND	--	--	ND	ND	ND	ND	ND	--
	5/14/1998	0.12	--	--	ND	ND	ND	ND	ND	--
	11/19/1998	ND	--	--	ND	ND	ND	ND	ND	--
	5/18/1999	ND	0.072	--	ND	ND	ND	ND	ND**	--
	11/23/1999	ND	ND	--	ND	ND	ND	ND	ND**	--
	5/16/2000	ND	ND	--	ND	ND	ND	ND	ND**	--
	11/21/2000	ND	ND	--	ND	ND	ND	ND	ND	--
	6/4/2001	0.064	--	--	ND	ND	ND	ND	ND	--
	12/8/2001	0.114	--	--	ND	2.2	ND	2.9	--	--
	5/17/2002	ND	--	--	ND	ND	ND	ND	--	--
	2/20/2003	ND	--	--	ND	ND	ND	ND	--	--
	2/28/2004	ND	--	--	ND	ND	ND	ND	ND	--
	2/17/2005	ND	--	--	ND	ND	0.6	2.5	--	ND

Notes: \* = by EPA Method 8240

\*\* = by EPA Method 8260

\*\*\* = chromatogram pattern is not typical of fuel

**Table 1.**  
**Water Analytical Results**  
**Santa Rosa Air Center**  
**3842 Finley Avenue**  
**Santa Rosa, California**

Location	Date	TPH-gas	TPH-avgas	TEPH	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	VOCs	Diesel Fuel #2	Kerosene	Motor Oils	Semi Volatile Organics	Stoddard
		mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-2	3/4/1994	1.3	--	--	46.	26.	14.	29.	--	--	--	--	--	--	--
	6/30/1994	2.2	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--
	10/5/1994	0.32	--	--	150.	1.7	4.4	5.	--	--	--	--	--	--	--
	12/15/1994	0.58	--	--	57.	ND	ND	ND	--	--	--	--	--	--	--
	6/21/1995	3.6	--	--	1200.	5.9	140.	37.	--	--	--	--	--	--	--
	9/25/1995	4.1	--	--	1300.	7.1	150.	28.	--	--	--	--	--	--	--
	3/8/1996	8.6	--	--	2600.	10.	270.	46.	--	--	--	--	--	--	--
	12/24/1996	8.5	--	--	3100.	9.4	350.	33.	--	--	--	--	--	--	--
	4/14/1997	9.1	--	--	3200.	11.	310.	40.	--	--	--	--	--	--	--
	7/16/1997	4.8	--	--	1800.	16.	130.	11.	--	--	--	--	--	--	--
	8/19/1997	2.1	--	--	290.	ND	ND	ND	--	--	--	--	--	--	--
	11/14/1997	3.7	--	--	220.	ND	6.	2.6	ND	--	--	--	--	--	--
	2/17/1998	1.5	--	ND	97.	ND	1.	0.79	ND	--	--	--	--	--	--
	5/14/1998	1.5	--	--	140.	ND	3.3	0.71	41.	--	--	--	--	--	--
	8/18/1998	2.5	--	--	610.	ND	ND	ND	ND	--	--	--	--	--	--
		--	--	--	530*	ND*	ND*	ND*	ND*	ND*	--	--	--	--	--
	11/19/1998	3.2	--	--	480.	0.76	8.	4.3	15.	--	--	--	--	--	--
		--	--	--	--	--	--	--	ND**	--	--	--	--	--	--
	2/11/1999	ND	0.16	--	72.	1.1	0.81	ND	ND**	--	--	--	--	--	--
	5/18/1999	ND	2.0	--	370.	ND	4.5	2.9	ND**	--	--	--	--	--	--
	8/17/1999	2.3	ND	--	490.	24.	15.	8.3	ND**	--	--	--	--	--	--
	11/23/1999	3.6	ND	--	310.	19.	10.	ND	ND**	--	--	--	--	--	--
	1/13/2000	2.5	ND	--	120.	3.3	2.2	1.5	ND**	--	--	--	--	--	--
	5/16/2000	2.7	ND	--	380.	11.	22.	19.	ND**	--	--	--	--	--	--
	8/24/2000	1.0	ND	--	400.	ND	6.6	ND	ND**	--	--	--	--	--	--
	11/21/2000	2.3	1.8	--	200.	4.4	4.1	3.4	34.	--	--	--	--	--	--
	2/26/2001	ND	ND	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	5/22/2001	4.7	--	--	200.	32.	1.	5.	ND**	--	--	--	--	--	--
	9/1/2001	2.0	--	--	390.	11.	8.	2.	--	--	--	--	--	--	--
	12/8/2001	9.67	--	--	1190.	46.5	1050.	506.	--	--	--	--	--	--	--
	2/28/2002	7.63	--	--	2250.	48.6	448.	231.	--	--	--	--	--	--	--
	5/17/2002	9.08	--	--	2180.	37.8	470.	161.	--	--	--	--	--	--	--
	8/23/2002	5.45	--	--	1000.	35.8	195.	77.8	--	--	--	--	--	--	--
	11/21/2002	4.85	--	--	920.	35.1	297.	131.	--	--	--	--	--	--	--
	2/20/2003	4.35	--	--	1190.	11.	201.	83.2	--	--	--	--	--	--	--
	5/23/2003	8.16	--	--	1220.	28.2	436.	110.	--	--	--	--	--	--	--
	8/15/2003	5.21	--	--	938.	20.	200.	50.	--	--	--	--	--	--	--
	11/20/2003	7.33	--	--	1360.	24.1	345.	117.	--	--	--	--	--	--	--
	2/28/2004	3.61	--	--	524.	7.5	125.	42.1	ND	--	--	--	--	--	--
	5/20/2004	4.28	--	--	934.	9.7	73.7	39.7	ND	--	--	--	--	--	--
	8/18/2004	1.64	--	--	852.	12.9	117.	33.3	--	--	--	--	--	--	--
	10/29/2004	8.22	--	--	2100.	14.7	424.	123.	--	--	60****	129****	11*****	--	--
	2/17/2005	4.29	--	--	547.	18.8	124.	31.2	--	--	--	--	--	0.146	--
	5/17/2005	1.82	--	--	637.	3.1	97.5	22.5	--	--	0.11***	0.12***	ND	--	0.14**
	9/1/2005	4.1	--	--	1000.	ND	78.	14.	--	--	ND	290***	ND	--	ND
	11/17/2005	5.3	--	--	1100.	ND	23.	5.8	--	--	ND	ND	ND	--	ND

Notes: \* by EPA Method 8240

\*\* = by EPA Method 8260

\*\*\* = chromatogram pattern is not typical of fuel

\*\*\*\* = chromatogram pattern is not typical of diesel or kerosene, due to gasoline overlap

\*\*\*\*\* = chromatogram pattern is not typical of motor oils, due to single peaks

**Table 1.**  
**Water Analytical Results**  
**Santa Rosa Air Center**  
**3842 Finley Avenue**  
**Santa Rosa, California**

Location	Date	TPH-gas	TPH-avgas	TEPH	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	VOCs
		mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-3	3/4/1994	ND	--	--	ND	ND	ND	ND	--	--
	6/30/1994	0.84	--	--	ND	ND	ND	ND	--	--
	10/5/1994	ND	--	--	ND	ND	ND	ND	--	--
	12/15/1994	ND	--	--	ND	ND	ND	ND	--	--
	6/21/1995	ND	--	--	0.8	ND	ND	ND	--	--
	9/25/1995	ND	--	--	ND	ND	ND	ND	--	--
	3/8/1996	ND	--	--	ND	ND	ND	ND	--	--
	12/24/1996	0.052	--	--	1.1	ND	ND	0.69	--	--
	4/14/1997	ND	--	--	ND	ND	ND	ND	--	--
	7/16/1997	0.056	--	--	ND	ND	ND	ND	--	--
	8/19/1997	0.9	--	--	ND	ND	ND	ND	ND	--
	11/14/1997	0.19	--	--	ND	ND	ND	ND	ND	--
	2/17/1998	ND	--	--	0.7	ND	ND	ND	ND	--
	5/14/1998	ND	--	--	ND	ND	ND	ND	ND	--
	11/19/1998	0.058	--	--	ND	ND	ND	ND	ND	--
	5/18/1999	ND	0.082	--	ND	ND	ND	ND	ND**	--
	11/23/1999	0.066***	ND	--	ND	ND	ND	ND	ND**	--
	5/16/2000	ND	ND	--	ND	ND	ND	ND	ND**	--
	11/21/2000	0.077***	ND	--	ND	ND	ND	ND	ND	--
	6/4/2001	0.1	--	--	ND	ND	ND	ND	ND**	--
	12/8/2001	0.091	--	--	ND	ND	ND	ND	--	--
	5/17/2002	0.06	--	--	ND	ND	ND	ND	--	--
	2/20/2003	ND	--	--	0.6	ND	ND	ND	--	--
	2/28/2004	0.059	--	--	ND	ND	ND	ND	ND	--
	2/17/2005	0.081	--	--	4.5	ND	ND	ND	--	--

Notes: \* = by EPA Method 8240

\*\* = by EPA Method 8260

\*\*\* = chromatogram pattern is not typical of fuel



Table 2  
Monitor Well Coordinates  
3842 Finley Avenue  
Santa Rosa, California

Well	Easting	Northing
MW-1	5,913,720.80	2,346,339.39
MW-2	5,913,598.50	2,346,408.63
MW-3	5,913,567.51	2,346,287.18

Notes: California Coordinates measured on August 18, 2004  
by Atlas using GPS equipment.

Table 3  
Water Level Measurements  
3842 Finley Avenue  
Santa Rosa, California

Well	Top of Casing (TOC)	Depth to Water Elevation (DTW)	Water Surface Elevation (WSE)
<u>November 17, 2005</u>			
MW-1	97.60	9.75	87.85
MW-2	96.73	9.10	87.63
MW-3	97.15	9.53	87.62

Notes: Elevations referenced to Mean Sea Level (MSL)  
All measurements are in feet.

**Table 4.**  
**Horizontal Hydraulic Gradients**  
**3842 Finley Avenue**  
**Santa Rosa, California**

Date	Magnitude	Angle from North
4/24/1994	0.001	215
5/27/1994	0.002	232
6/30/1994	0.001	238
7/21/1994	0.0017	237
8/26/1994	0.0016	258
10/5/1994	0.0016	246
10/21/1994	0.002	248
12/15/1994	0.001	149
6/21/1995	0.003	198
9/25/1995	0.002	235
3/8/1996	0.001	164
12/24/1996	0.001	152
4/14/1997	0.002	196
7/16/1997	0.002	255
8/19/1997	0.0016	306
9/16/1997	0.0023	269
10/17/1997	0.0013	321
11/14/1997	0.0015	283
12/18/1997	0.0010	124
1/16/1998	0.0013	144
2/17/1998	0.00044	274
3/12/1998	0.0010	241
4/16/1998	0.0016	239
5/14/1998	0.0022	216
6/16/1998	0.0028	233
8/18/1998	0.0016	244
11/19/1998	0.0014	257
2/11/1999	0.0015	168
5/18/1999	0.0018	236
9/27/1999	0.0030	268
11/23/1999	0.0015	292
1/13/2000	0.0017	260
5/16/2000	0.0022	230
8/24/2000	0.0020	271
11/21/2000	0.0019	287
2/26/2001	0.0007	181
5/22/2001	0.0018	253
9/1/2001	0.0044	295
12/8/2001	0.0076	125
3/26/2002	0.0017	196
5/17/2002	0.0023	224
8/23/2002	0.0087	106
11/21/2002	0.0016	319
2/20/2003	0.0016	170
5/23/2003	0.0016	233
8/15/2003	0.0028	260
11/20/2003	0.0021	265
2/28/2004	0.0017	183
5/20/2004	0.0020	235
8/18/2004	0.0029	260
10/29/2004	0.0019	282
2/17/2005	0.0013	167
5/17/2005	0.0018	213
9/1/2005	0.0070	135
11/17/2005	<b>0.0016</b>	<b>282</b>

Note: Beginning 8/18/04, gradients calculated using coordinates determined by Atlas using GPS equipment

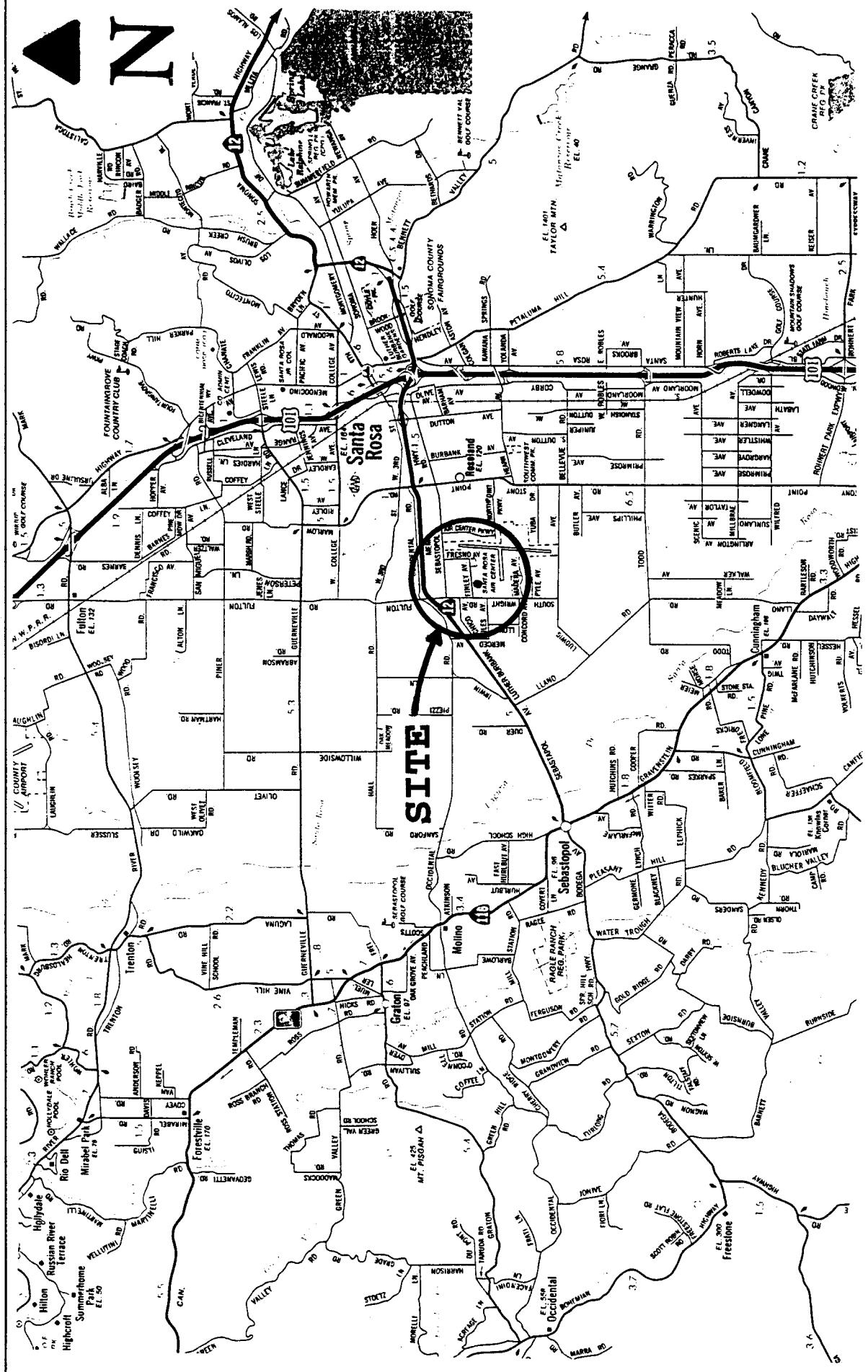
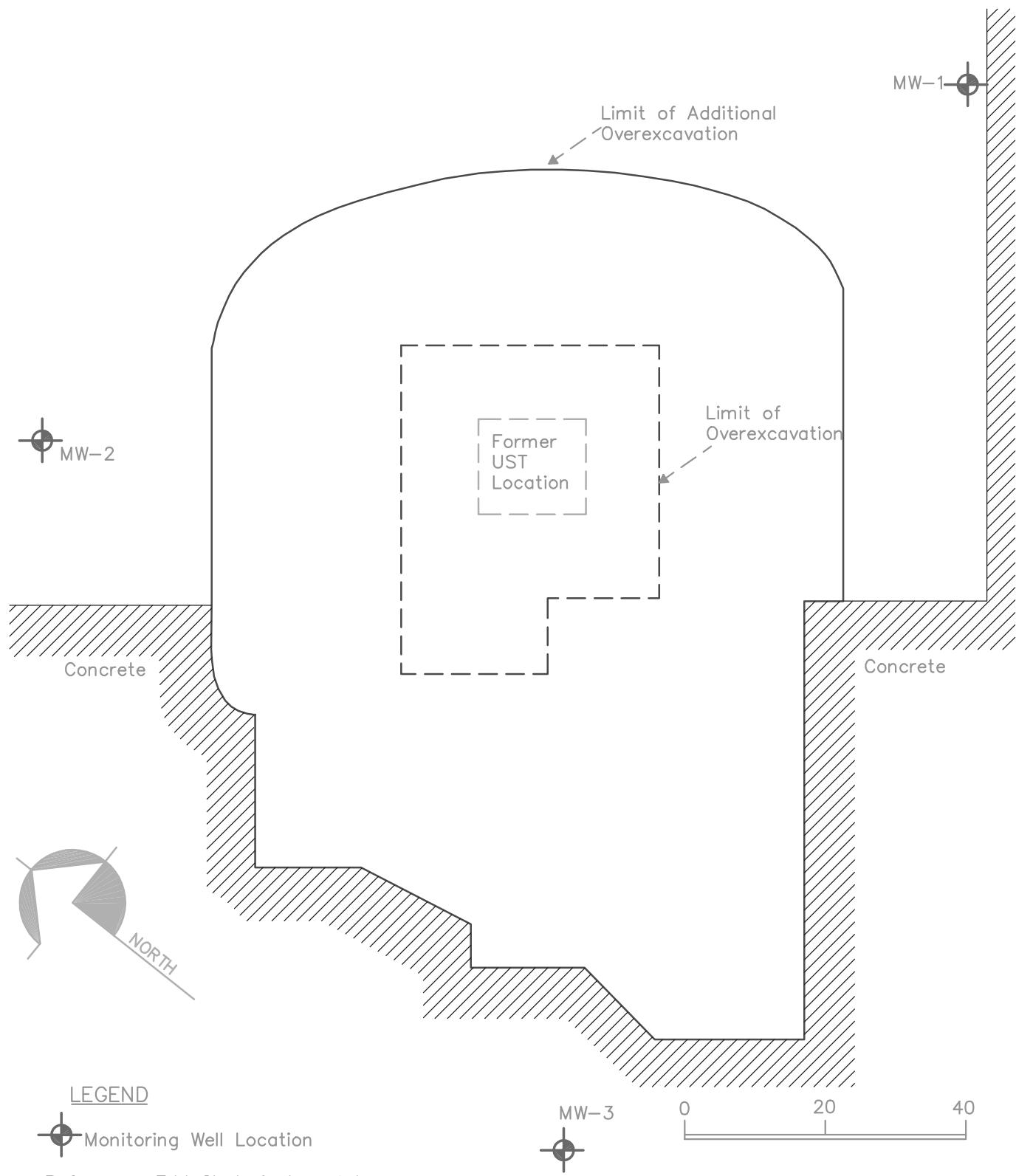


Figure 1. Location Map  
3842 Finley Avenue  
Santa Rosa, California

No scale

# ATLAS

ENGINEERING SERVICES, INC.



## FIELD SHEET

JOB/SITE NAME: SRAC

DATE: 11/17/05

WORK DONE BY: JE

ACTIVITY: Quarterly Monitoring

EQUIPMENT RENTAL/ DRILLER:

HOURS:

## NOTES:

## TIME DESCRIPTION

1010 - Arrived on site. Gate locked w/ new combo  
Walked in met w/ Caretaker Larry  
New combo is 1903

1055 Sampled well from sink faucet in bathroom  
after purging for five minutes.

1105 Opened wells.

Measuring depth to water

	DTR	DTL
MW-1	9.75	9.75
MW-3	9.53	9.53
MW-2	9.10	9.10

Checked MW-2 for F.P. -/ new bair & attachment  
No F.P. observed

Sampling MW-2

Emptyd gauge

Emptied purge water into green tank

1315 Left site - Dropping samples off at lab.

## DATA SHEET FOR SAMPLING WELL

MW-2

JOB NAME SRAC  
SAMPLED BY JE

DATE 11/17/05  
SHEET 1 OF 1

## USE POSITIVE VALUES

WELL DEPTH (WD) 21

INITIAL DEPTH TO WATER (DTWI) 9.10

( WD - DTWI )( X GAL/FT ) = CASING VOLUME (CV)

$$(21 - 9.0)(66 \text{ GAL/FT}) = 7.85 \text{ GAL/CV}$$

(3 CV) (GAL/CV) = 3 CASING VOLUMES

( 3 ) ( 7.85 ) = 24 GALLONS NEED TO BE PURGED

DIA.	X
2"	0.17
4" (circled)	0.66
6"	1.5

FINAL DEPTH TO WATER (DTWF) 15.53

$$0.2 \text{ ( DTWF )} + \text{ ( DTWI )} = \text{DTW FOR 80\% RECOVERY (DTW 80\%R)}$$

$$0.2 \text{ ( } 15.5 \text{ )} + \text{ ( } 9.10 \text{ )} = \text{ } 10.39 \text{ FT MAX. BEFORE SAMPLING}$$

# **Entech Analytical Labs, Inc.**

**3334 Victor Court , Santa Clara, CA 95054**

**Phone: (408) 588-0200**

**Fax: (408) 588-0201**

**Fred Yukie  
Atlas Engineering Services  
P.O. Box 1260  
Santa Cruz, CA 95061**

**Lab Certificate Number: 46385  
Issued: 12/05/2005**

**Project Name: SRAC**

**Project Location: Finley Ave, Santa Rosa  
Global ID: T060972349**

## **Certificate of Analysis - Final Report**

On November 18, 2005, a sample was received under chain of custody for analysis.

Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test</u>	<u>Comments</u>
Liquid	Electronic Deliverables	
	TPH-Extractable	
	EPA 8260B - GC/MS	
	TPH as Gasoline by GC/MS	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).  
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



Laurie Glantz-Murphy  
Laboratory Director

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Atlas Engineering Services  
P.O. Box 1260  
Santa Cruz, CA 95061  
Attn: Fred Yukic

Date Received: 11/18/2005 5:41:18 PM  
Project ID: SRAC

Project Name: SRAC  
GlobalID: T060972349

## Certificate of Analysis - Data Report

Sample Collected by: Client

Lab # : 46385-001    Sample ID: MW-2

Matrix: Liquid    Sample Date: 11/17/2005 12:31 PM

EPA 3510C EPA 8015 MOD. (Extractable)									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	TPH-Extractable QC Batch
TPH as Diesel	ND		1.0	52	µg/L	11/21/2005	DW051121B	11/23/2005	DW051121B
100 ppb higher boiling gasoline compounds (C8-C14). No Diesel pattern present.									
TPH as Motor Oil	ND		1.0	210	µg/L	11/21/2005	DW051121B	11/23/2005	DW051121B
TPH as Kerosene	ND		1.0	52	µg/L	11/21/2005	DW051121B	11/23/2005	DW051121B
TPH as Mineral Spirits (Stoddard)	ND		1.0	52	µg/L	11/21/2005	DW051121B	11/23/2005	DW051121B
<b>Surrogate</b>	<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>				Analyzed by: EricKum		
o-Terphenyl	82.2		22 - 133				Reviewed by: dba		

EPA 5030C EPA 8260B EPA 624

8260Petroleum									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	1100		10	5.0	µg/L	N/A	N/A	11/29/2005	WM2051129
Toluene	ND		10	5.0	µg/L	N/A	N/A	11/29/2005	WM2051129
Ethyl Benzene	23		10	5.0	µg/L	N/A	N/A	11/29/2005	WM2051129
Xylenes, Total	5.8		10	5.0	µg/L	N/A	N/A	11/29/2005	WM2051129
<b>Surrogate</b>	<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>				Analyzed by: TAF		
4-Bromofluorobenzene	104		70 - 130				Reviewed by: MaiChiTu		
Dibromofluoromethane	110		70 - 130						
Toluene-d8	106		70 - 130						

EPA 5030C GC-MS

TPH as Gasoline - GC-MS									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	5300		10	250	µg/L	N/A	N/A	11/29/2005	WM2051129
<b>Surrogate</b>									
4-Bromofluorobenzene	94.9		70 - 130				Analyzed by: TAF		
Dibromofluoromethane	113		70 - 130				Reviewed by: MaiChiTu		
Toluene-d8	98.8		70 - 130						

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

12/5/2005 6:34:13 PM - dba

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Liquid - EPA 8015 MOD. (Extractable) - TPH-Extractable

QC/Prep Batch ID: DW051121B

Validated by: dba - 11/28/05

QC/Prep Date: 11/21/2005

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L
TPH as Kerosene	ND	1	50	µg/L
TPH as Mineral Spirits (Stoddard)	ND	1	50	µg/L
TPH as Motor Oil	ND	1	200	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	<b>68.4</b>	22 - 133

Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD. (Extractable) - TPH-Extractable

QC/Prep Batch ID: DW051121B

Reviewed by: dba - 11/28/05

QC/Prep Date: 11/21/2005

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	643	µg/L	64.3	40 - 138
TPH as Motor Oil	<200	1000	770	µg/L	77.0	40 - 138
Surrogate	% Recovery	Control Limits				
o-Terphenyl	<b>85.7</b>	22 - 133				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	798	µg/L	79.8	<b>21</b>	25.0	40 - 138
TPH as Motor Oil	<200	1000	862	µg/L	86.2	<b>11</b>	25.0	40 - 138
Surrogate	% Recovery	Control Limits						
o-Terphenyl	<b>95.4</b>	22 - 133						

# Entech Analytical Labs, Inc.

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3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

## Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051129

QC Batch Analysis Date: 11/29/2005

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

### Surrogate for Blank    % Recovery    Control Limits

4-Bromofluorobenzene	<b>103</b>	70	-	130
Dibromofluoromethane	<b>109</b>	70	-	130
Toluene-d8	<b>107</b>	70	-	130

## Method Blank - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM2051129

QC Batch Analysis Date: 11/29/2005

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	25	µg/L

### Surrogate for Blank    % Recovery    Control Limits

4-Bromofluorobenzene	<b>94.5</b>	70	-	130
Dibromofluoromethane	<b>111</b>	70	-	130
Toluene-d8	<b>100</b>	70	-	130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200 Fax: (408) 588-0201

Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051129

QC Batch ID Analysis Date: 11/29/2005

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	21.1	µg/L	105	70 - 130
Benzene	<0.50	20	19.9	µg/L	99.7	70 - 130
Chlorobenzene	<0.50	20	20.7	µg/L	103	70 - 130
Methyl-t-butyl Ether	<1.0	20	21.1	µg/L	106	70 - 130
Toluene	<0.50	20	19.4	µg/L	96.9	70 - 130
Trichloroethene	<0.50	20	22.1	µg/L	110	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	106	70 - 130
Dibromofluoromethane	109	70 - 130
Toluene-d8	102	70 - 130

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	21.0	µg/L	105	0.46	25.0	70 - 130
Benzene	<0.50	20	19.6	µg/L	97.9	1.8	25.0	70 - 130
Chlorobenzene	<0.50	20	20.3	µg/L	102	1.6	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	21.5	µg/L	108	1.8	25.0	70 - 130
Toluene	<0.50	20	19.0	µg/L	94.8	2.3	25.0	70 - 130
Trichloroethene	<0.50	20	21.5	µg/L	108	2.6	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	107	70 - 130
Dibromofluoromethane	111	70 - 130
Toluene-d8	102	70 - 130

Laboratory Control Sample / Duplicate - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM2051129

QC Batch ID Analysis Date: 11/29/2005

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	250	255	µg/L	102	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95	70 - 130
Dibromofluoromethane	110	70 - 130
Toluene-d8	98.5	70 - 130

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	250	274	µg/L	110	7.2	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95.9	70 - 130
Dibromofluoromethane	111	70 - 130
Toluene-d8	98	70 - 130

# Entech Analytical Labs, Inc. Chain of Custody / Analysis Request

3334 Victor Court  
 (408) 588-0200  
 Santa Clara, CA 95054  
 (408) 588-0201 - Fax

Attention to:	Phone No.: (408) 426-1440		Purchase Order No.:	Invoice to: (If Different)		Phone:
Company Name:	Project No.:		Company:			Quote No.:
Atlas Engineering	(408) 426-1288					
Mailing Address:	Email Address: Atlas@Cruzo.com		Project Name: SRAC	Billing Address: (If Different)		
P.O. Box 1200						
City: Santa Cruz	State: CA	Zip Code: 95061	Project Location: Finley Ave, Santa Rosa	City:	State:	Zip:
Sampler: JE	Field Org. Code:	Turn Around Time	Matrix	GC/MS Methods		General Chemistry
		<input type="checkbox"/> Same Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 4 Day <input checked="" type="checkbox"/> 10 Day				
Global ID: T060972349						
Order ID: 11181051615						
No. of Containers						
Client ID / Field Point	Lab. No.	Date	Time	Matrix		
HW-2	1118105-001	11/17/05	12:31	ur		X
		11/17/05	10:55	t		X
Sample						
Special Instructions or Comments						
Relinquished by: <i>John S.</i>	Date: 11/18/05	Time: 1347	<input type="checkbox"/> EDD Report <input checked="" type="checkbox"/> EDF Report <input type="checkbox"/> Plating <input type="checkbox"/> LUFT-5			
Received by: <i>John S.</i>	Date: 11/18/05	Time: 1600	<input type="checkbox"/> RCRA-8 <input type="checkbox"/> PPM-13 <input type="checkbox"/> CAM-17			
Relinquished by: <i>John S.</i>	Date: 11/18/05	Time: 1615				
Received by: <i>John S.</i>	Date: 11/18/05	Time: 1615				
Metals:	Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn, Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Ti, Zn, V, W, Zr					
June 2004						